

What Scientific Laws are

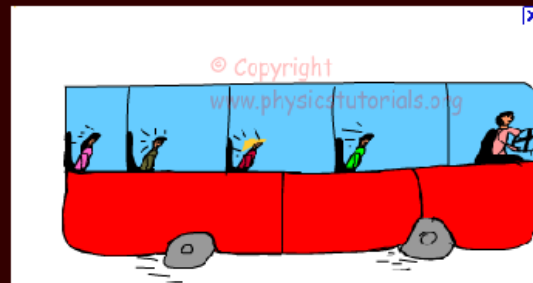
▪ representing?
The Cogs

Predictions

Newton's Laws of Motion

- Principia (1687)
First

1. An object at rest remains at rest, and an object in motion remains in motion at a constant speed and in a straight line unless acted on by an unbalanced force.



Newton's First Law

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$$s = d/t$$

Speed = distance/time

Newton's Second Law

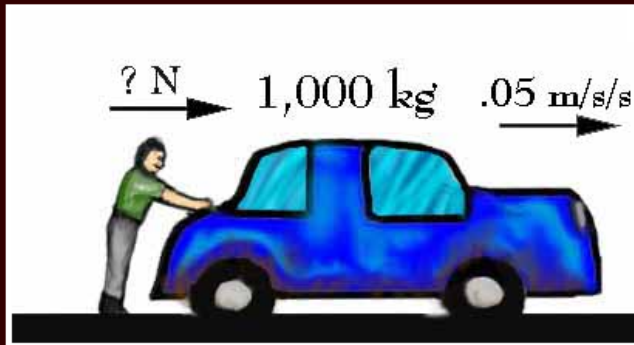
Newton's Third Law

Examples

Newton's Laws of Motion

- Principia (1687)
Second

2. The acceleration of an object depends on the mass of the object and the amount of force applied. The calculation of force in Newtons is represented as $F = ma$



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UNIT FOR FORCE IS
NEWTONS! or N

Newton's Third Law

Examples



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Third

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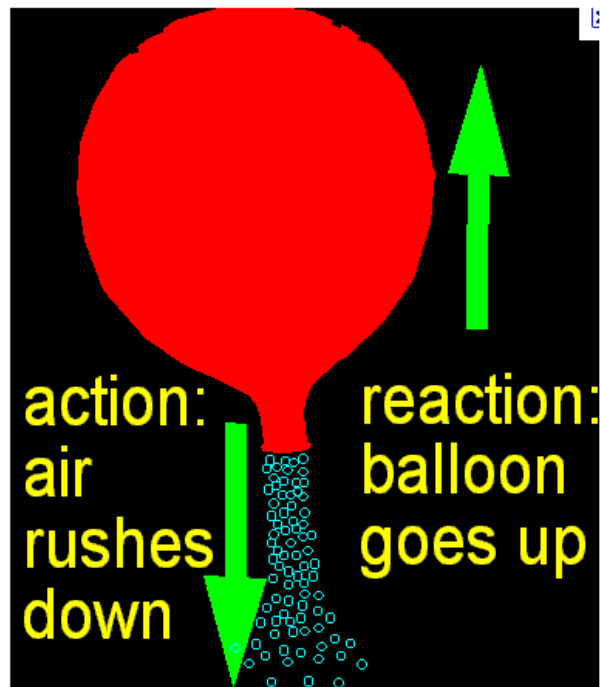
$$F = ma$$

Force = (mass)x(acceleration)

Newton's Third Law

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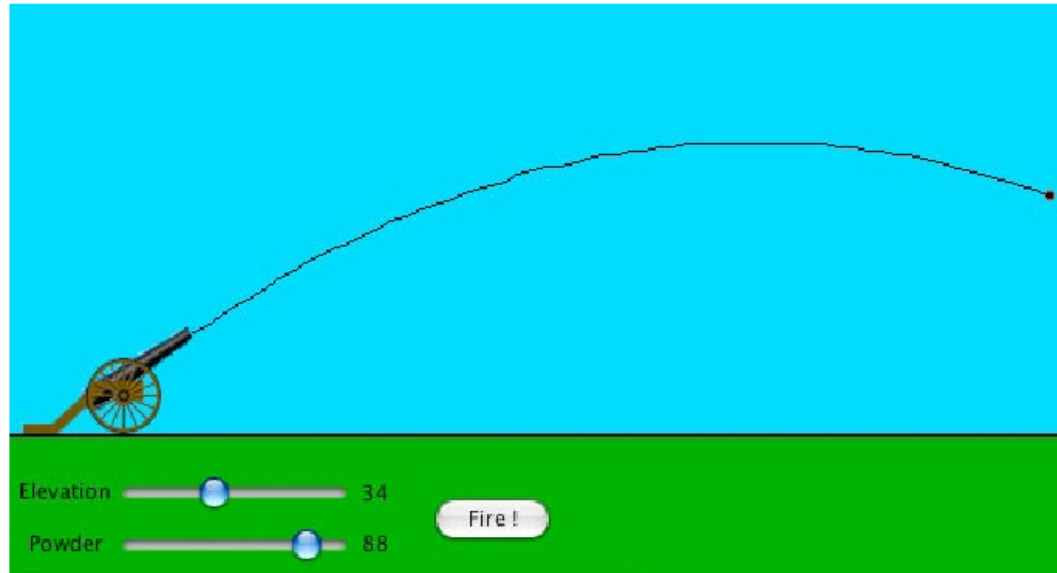
Examples



1

2

3



1

2

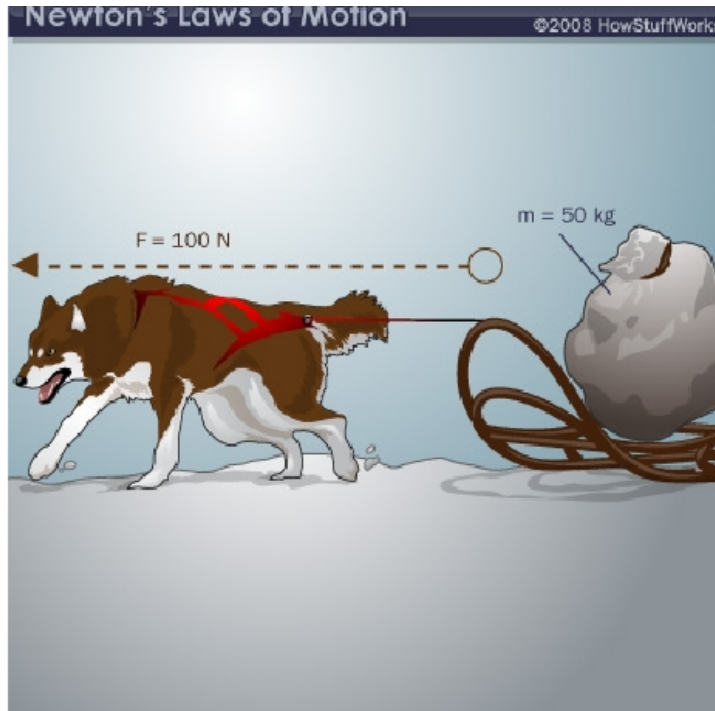
3



1

2

3

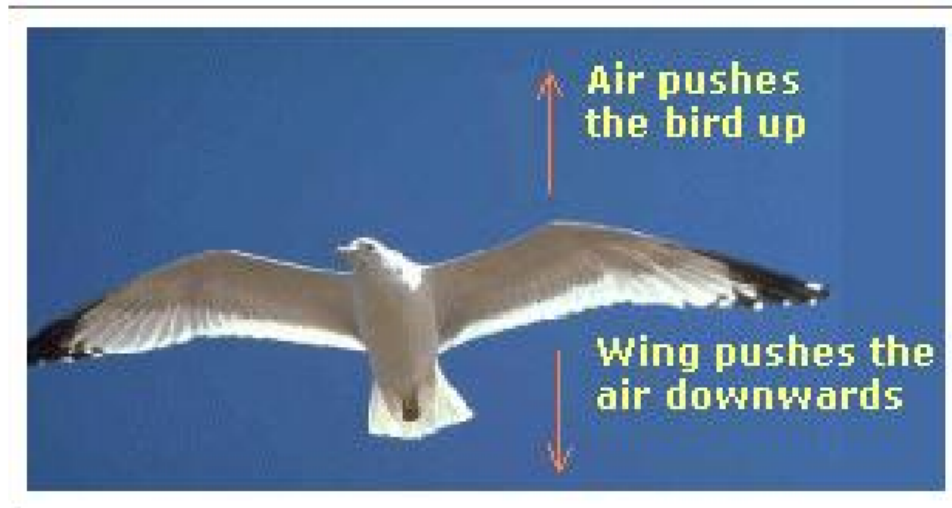


Remember $F = ma$

1

2

3



1

2

3



1

2

3